

Amended paragraph:

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For example, when the switching regulator 255 causes a voltage spike, the voltage on the voltage rail will begin to quickly increase. The clamping circuit 300 may be configured to detect a relatively small increase in the voltage. Thus, at the beginning of the spike, the voltage on the voltage rail may exceed the voltage the detecting stage is configured to detect, causing the detecting stage to activate the clamping stage. When the clamping stage is activated, it begins to reduce the voltage. The clamping circuit 300 may be configured to turn on very quickly, so that the clamping circuit 300 begins reducing the supply voltage contemporaneously with the voltage spike occurring. The clamping circuit 300 may also contain components capable of sinking a significant amount of current to ground. Thus, the clamping circuit 300 can be configured to keep voltage spikes caused by the switching regulator 255 from causing the voltage to exceed the maximum voltage. By doing so, the clamping circuit 300 protects sensitive electrical components dependent on this rail from voltage spikes and other over-voltage conditions. Once the voltage spike has been clamped and the supply voltage returns to its normal level, the clamping circuit may be configured to deactivate the clamping stage.

In the Claims:

Please amend claim 21 as set forth below. Included herewith on a separate sheet is a marked-up copy of the amended claim, illustrating the changes made thereto.

21. (Amended) A clamping circuit configured to clamp a voltage rail in a computer system comprising:

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a voltage divider coupled to the voltage rail and to a shunt regulator, wherein the voltage divider is configured to apply an input voltage to the shunt regulator, wherein the voltage divider is configured so that the input voltage is greater than or equal to a reference voltage level of the shunt regulator when a voltage on the voltage rail is greater than or equal to a